



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,386	04/22/2004	Jong-tae An	1793.1242	5413
21171	7590	06/28/2007	EXAMINER	
STAAS & HALSEY LLP			HEYI, HENOK G	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.			2609	
WASHINGTON, DC 20005				
MAIL DATE		DELIVERY MODE		
06/28/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/829,386	AN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Henok G. Heyi	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-20 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 22 April 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Double Patenting***

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 2, 3, 5, 6, 7, 11, 12, 13, 15, 16 and 17 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 6, 4, 13, 14, 12, 15, 17, 26, 13 and 14 of U.S. Patent No. 6,532,210. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims in the present application are broader than in those US patent 6,532,210 B2. The difference can be seen clearly in Table 1 below:

Table 1

Present Application 10/829386 An et al.	US 6,532,210 B2 Park
1. An optical disc, for information recording and/or reproduction using light, having a center hole, the optical disc comprising at least one sheet attached and surrounding the center hole to prevent generation and development of cracks near the center hole.	1. A media disk, comprising: a non-recording surface portion disposed around a center hole of the disk; an information recording surface portion disposed around the non-recording surface portion; and a crack hindering element formed in the non-recording surface portion to hinder the generation of a crack at the center hole from advancing to an outer edge of the disk, with the crack hindering element including at least one annular protrusion portion protruded around the center hole.
2. The optical disc of claim 1, wherein the sheet has an annular shape.	2. The media disk of claim 1, wherein the annular protrusion portion has a cross-sectional bead shape.
3. The optical disc of claim 1, wherein the disc is divided into a clamping area adjacent to the center hole, a data area in which data is recorded, and a lead-in area between the clamping area and the data area, wherein the at least one sheet is attached to the clamping area.	6. A media disk, comprising: a non-recording surface portion disposed around a center hole of the disk; an information recording surface portion disposed around the non-recording surface portion; and a crack hindering element formed in the non-recording surface portion hinder the generation of a crack at the center hole from advancing to an outer edge of the disk, with the crack hindering element including at least one annular iron core embedded around the center hole.
5. The optical disc of claim 3,	4. The media disk of claim 1, wherein

wherein the sheet has an annular shape.	the crack hindering element forms a continuous ring around the center hole.
6. The optical disc of claim 1, wherein the sheet is of paper or other frictional flexible materials.	13. The media disk of claim 12, wherein the taping member is made of a fiber material having stability against shearing or breakage.
7. The optical disc of claim 3, wherein the sheet is attached to the clamping area using an adhesive or a double-sided tape.	14. The media disk of claim 12, wherein the taping member is adhered to the non-recording surface portion by an adhesive bond.
11. An optical disc comprising a material attached and surrounding a center hole of the optical disc, preventing generation and development of cracks near the center hole.	12. A media disk, comprising: a non-recording surface portion disposed around a center hole of the disk; <b>an information recording surface portion disposed around the non-recording surface portion</b> ; and a crack hindering element placed in the non-recording surface portion to hinder the generation of a crack at the center hole from advancing to an outer edge of the disk, <b>with the crack hindering element including at least one annular taping member adhered to an area surrounding the center hole, the annular taping member being made of a material different from a material of the information recording surface portion</b> .
12. The optical disc of claim 11, wherein the material has an annular shape.	15. The media disk of claim 12, wherein the crack hindering element includes a plurality of taping members placed around the center hole at <b>predetermined distances</b> .
13. The optical disc of claim 11, wherein the disc is divided into a	17. A media disk, comprising: a non-recording surface portion disposed

<p>clamping area adjacent to the center hole, a data area in which data is recorded, and a lead-in area between the clamping area and the data area, wherein the material is attached to the clamping area.</p>	<p>around a center hole of the disk; an information recording surface portion disposed around the non-recording surface portion; and a crack hindering element generated in the non-recording surface portion to hinder the generation of a crack at the center hole from advancing to an outer edge of the disk, with the crack hindering element including a coating layer disposed on an area surrounding the center hole.</p>
<p>15. The optical disc of claim 13, wherein the material has an annular shape.</p>	<p>26. The media disk of claim 25, wherein the flange portion is disposed continuously around the center hole edge.</p>
<p>16. The optical disc of claim 11, wherein the material is paper or other frictional flexible materials.</p>	<p>13. The media disk of claim 12, wherein the taping member is made of a fiber material having stability against shearing or breakage.</p>
<p>17. The optical disc of claim 13, wherein the material is attached to the clamping area using an adhesive or a double-sided tape.</p>	<p>14. The media disk of claim 12, wherein the taping member is adhered to the non-recording surface portion by an adhesive bond.</p>

Re claim 1, as can be seen from the table above, claim 1 of the present application is broader than claim 1 of the patent such as a crack at the center hole from advancing to an outer edge of the disk, with the crack hindering element.

Art Unit: 2609

Re claim 2, Park has disclosed an annular shaped protrusion portion that is similar to what is claimed in this application but gives more specification by describing it as a cross-sectional bead shape.

Re claim 3, as can be seen from the table above, Park US 6, 532,210 B2 (claim 6) differs from the present application because he does not mention lead-in are of the disc being between the clamping area and data are. However, it would have rendered obvious for ordinary person skilled in the art that recording area always starts with a lead-in area and ends with lead-out area. Furthermore, Park discloses a crack hindering element including at least one annular iron core imbedded around the center hole. The imbedded iron core is just one embodiment of the at least five different embodiments the disc could have to avoid generation and development of cracks.

Re claim 5, which is exactly the same claim as claim 2 above, Park has already claimed a crack hindering element around a center hole that has an annular or a continuous ring shape.

Re claim 6, in the current application what is claimed is a sheet of paper or other frictional flexible material while what Park has claimed before is a fiber material having stability against shearing breakage. Applicant has used different wordings but the claim has similar meaning and breadth with what Park has already claimed.

Re claim 7, what Park has already claimed, a taping member with adhesive bond is exactly the same as what is being claimed in this application that raises a double patenting issue.

Re claim 11, as can be seen from the table above, the claimed invention has been already taught by Park more specifically. Park teaches about the different areas of the disc including the center hole, crack hindering element, non-recording portion and information recording portion while in claim 11 applicant claims only about the center hole. Park further claimed about an annular taping material that is different from a material of the information recording surface portion that is not claimed in this application.

Re claim 12, the current application claims only about the shape of the material around the center hole. However, Park goes further to claim the size of the material around the center whole being at predetermined distance.

Re claim 13, as can be seen from the table above, what is claimed in the current application is similar in breadth and scope to what Park has claimed except some differences in wordings.

Re claim 15, what is claimed in this application is similar to what Park has claimed. The only difference is that Park is more specific by claiming flange portion while in the current application what is broadly claimed is a material.

Re claim 16, in the current application what is claimed is a sheet of paper or other frictional flexible material while what Park has claimed before is a fiber material having stability against shearing breakage. Applicant has used different wordings but the claim has similar meaning and breadth with what Park has already claimed.

Re claim 17, what Park has already claimed, a taping member with adhesive bond is exactly the same as what is being claimed in this application that raises a double patenting issue.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Park US 6,532, 210.

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Re claim 1, an optical disc, for information recording and/or reproduction using light (disk-type recording medium, col 5 line 22), having a center hole (inner circumference of the center hole, col 5 line 25), the optical disc comprising at least one sheet attached and surrounding the center hole to prevent generation and development of cracks near the center hole (disposing a material different from the recording medium, the generation and advancement of cracks is prevented, col 5 line32-39).

Re claim 2, the optical disc of claim 1, wherein the sheet has an annular shape (an annular non-recording surface portion disposed around the center hole, col 3 line 59-64).

Re claim 3, the optical disc of claim 1, wherein the disc is divided into a clamping area adjacent to the center hole (non-recording surface portion formed from the center hole

to the information recording surface, col 3 line 65), a data area in which data is recorded (disk-type recording medium, col 4 line 3), and a lead-in area between the clamping area and the data area (information recording surface, col 4 line 1), wherein the at least one sheet is attached to the clamping area (see fig. 4A).

Re claim 4, the optical disc of claim 3, wherein the clamping area is recessed such that a surface of the sheet attached to the clamping area is leveled with or lower than a surface of the lead-in area (the annular protrusion is formed around the center hole and integrally formed as one body with the non-recording surface portion, col 4 line 25-27 and see fig. 2B).

Re claim 5, the optical disc of claim 3, wherein the sheet has an annular shape (an annular non-recording surface portion disposed around the center hole, col 3 line 59-64).

Re claim 6, the optical disc of claim 1, wherein the sheet is of paper or other frictional flexible materials (fiber material having stability against shearing or breakage, col 4 line 60-65).

Art Unit: 2609

Re claim 7, the optical disc of claim 3, wherein the sheet is attached to the clamping area using an adhesive or a double-sided tape (the annular taping member may be adhered on the non-recording surface portion by an adhesive like bond, col 4 line 65-67).

Re claim 8, the optical disc of claim 3, wherein the clamping area is recessed by a depth equal to or greater than a thickness of the sheet (the annular protrusion is formed around the center hole and integrally formed as one body with the non-recording surface portion, col 4 line 25-27 and see fig. 2B).

Re claim 9, the optical disc of claim 1, wherein the sheet does not protrude above a top surface of the optical disc (see fig 4B).

Re claim 10, the optical disc of claim 8, wherein the sheet does not protrude above a top surface of the optical disc (see fig 4B).

Re claim 11, an optical disc comprising a material attached and surrounding a center hole of the optical disc, preventing generation and development of cracks near the center hole (coating layer around the inner circumference of the center hole, generation and advancement of a crack can be easily prevented, col 5 line32-39).

Art Unit: 2609

Re claim 12, the optical disc of claim 11, wherein the material has an annular shape (an annular non-recording surface portion disposed around the center hole, col 3 line 59-64).

Re claim 13, the optical disc of claim 11, wherein the disc is divided into a clamping area adjacent to the center hole (non-recording surface portion formed from the center hole to the information recording surface, col 3 line 65), a data area in which data is recorded (disk-type recording medium, col 4 line 3), and a lead-in area between the clamping area and the data area (information recording surface, col 4 line 1), wherein the material is attached to the clamping area (see fig. 4A).

Re claim 14, the optical disc of claim 13, wherein the clamping area is recessed such that a surface of the material attached to the clamping area is leveled with or lower than a surface of the lead-in area (the annular protrusion is formed around the center hole and integrally formed as one body with the non-recording surface portion, col 4 line 25-27 and see fig. 2B).

Re claim 15, the optical disc of claim 13, wherein the material has an annular shape (an annular non-recording surface portion disposed around the center hole, col 3 line 59-64).

Re claim 16, the optical disc of claim 11, wherein the material is paper or other frictional flexible materials (fiber material having stability against shearing or breakage, col 4 line 60-65).

Re claim 17, the optical disc of claim 13, wherein the material is attached to the clamping area using an adhesive or a double-sided tape (the annular taping member may be adhered on the non-recording surface portion by an adhesive like bond, col 4 line 65-67).

Re claim 18, the optical disc of claim 13, wherein the clamping area is recessed by a depth equal to or greater than a thickness of the material (the annular protrusion is formed around the center hole and integrally formed as one body with the non-recording surface portion, col 4 line 25-27 and see fig. 2B).

Re claim 19, the optical disc of claim 11, wherein the material does not protrude above a top surface of the optical disc (see fig 4B).

Re claim 20, the optical disc of claim 18, wherein the material does not protrude above a top surface of the optical disc (see fig 4B).

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henok G. Heyi whose telephone number is (571) 272-1816. The examiner can normally be reached on Monday to Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HGH



KIEU-OANH BUI  
PRIMARY EXAMINER